

<110> Zhou, Ming-Ming

<120> METHODS OF IDENTIFYING MODULATORS OF THE FGF RECEPTOR

<130> 2459-1-002N

<140> UNKNOWN

<141> 2001-01-11

<150> 60/175,867

<151> 2000-01-12

<160> 7

<170> PatentIn Ver. 2.0

<210> 1

<211> 508

<212> PRT

<213> Homo sapien

<400> 1

Met Gly Ser Cys Cys Ser Cys Pro Asp Lys Asp Thr Val Pro Asp Asn

1 5 10 15

His Arg Asn Lys Phe Lys Val Ile Asn Val Asp Asp Asp Gly Asn Glu
20 25 30

Leu Gly Ser Gly Ile Met Glu Leu Thr Asp Thr Glu Leu Ile Leu Tyr
35 40 45

Thr Arg Lys Arg Asp Ser Val Lys Trp\His Tyr Leu Cys Leu Arg Arg
50 55 60

Tyr Gly Tyr Asp Ser Asn Leu Phe Ser Phe Glu Ser Gly Arg Arg Cys
65 70 75 80

Gln Thr Gly Gln Gly Ile Phe Ala Phe Lys Cys Ala Arg Ala Glu Glu
85 90 95

Leu Phe Asn Met Leu Gln Glu Ile Met Gln Asn Asn Ser Ile Asn Val

Val Glu Glu Pro Val Val Glu Arg Asn Asn His Gun Thr Glu Leu Glu
115 120 125

- Val Pro Arg Thr Pro Arg Thr Pro Thr Thr Pro Gly Phe Ala Ala Gln 130 135 140
- Asn Leu Pro Asn Gly Tyr Pro Arg Tyr Pro Ser Phe Gly Asp Ala Ser 145 150 155 160
- Ser His Pro Ser Ser Arg His Pro Ser Val Gly Ser Ala Arg Leu Pro 165 170 175
- Ser Val Gly Glu Glu Ser Thr His Pro Leu Leu Val Ala Glu Glu Gln 180 185 190
- Val His Thr Tyr Val Asn Thr Thr Gly Val Glu Glu Arg Lys Asn 195 200 205
- Arg Thr Ser Val His Val Pro Leu Glu Ala Arg Val Ser Asn Ala Glu 210 215 220
- Ser Ser Thr Pro Lys Glu Glu Pro Ser Ser Ile Glu Asp Arg Asp Pro 225 230 235 240
- Gln Ile Leu Leu Glu Pro Glu Gly Val Lys Phe Val Leu Gly Pro Thr 245 250 255
- Pro Val Gln Lys Gln Leu Met Glu Lys Glu Lys Leu Glu Gln Leu Gly
 260 265 270
- Arg Asp Gln Val Ser Gly Ser Gly Ala Asn Asn Thr Glu Trp Asp Thr
 275 280 285
- Gly Tyr Asp Ser Asp Glu Arg Arg Asp Ala Pro Ser Val Asn Lys Leu 290 295 300
- Val Tyr Glu Asn Ile Asn Gly Leu Ser Ile Pro Ser Ala Ser Gly Val 305 310 315 320
- Arg Arg Gly Arg Leu Thr Ser Thr Ser Thr Ser Asp Thr Gln Asn Ile
 325 330 335
- Asn Asn Ser Ala Gln Arg Arg Thr Ala Leu Leu Asn Tyr Glu Asn Leu 340 345 350
- Pro Ser Leu Pro Pro Val Trp Glu Ala Arg Lys Leu Ser Arg Asp Glu 355 360 365
- Asp Asp Asn Leu Gly Pro Lys Thr Pro Ser Leu Asn Gly Tyr His Asn 370 375 380

Asn Leu Asp Pro Met His Asn Tyr Val Asn Thr Glu Asn Val Thr Val 385 390 395 400

Pro Ala Ser Ala His Lys Ile Glu Tyr Ser Arg Arg Arg Asp Cys Thr 405 410 415

Pro Thr Val Phe Asn Phe Asp Ile Arg Arg Pro Ser Leu Glu His Arg
420 425 430

Gln Leu Asn Tyr Ile Gln Val Asp Leu Glu Gly Gly Ser Asp Ser Asp 435 440 445

Asn Pro Gln Thr Pro Lys Thr Pro Thr Thr Pro Leu Pro Gln Thr Pro 450 455 460

Thr Arg Arg Thr Glu Leu Tyr Ala Val Ile Asp Ile Glu Arg Thr Ala 465 470 475 480

Ala Met Ser Asn Leu Gln Lys Ala Leu Pro Arg Asp Asp Gly Thr Ser 485 490 495

Arg Lys Thr Arg His Asn Ser Thr Asp Leu Pro Met 500 505

<210> 2

<211> 822

<212> PRT

<213> Mouse

<400> 2

Met Trp Gly Trp Lys Cys Leu Leu Phe Trp Ala Val Leu Val Thr Ala 1 5 10 15

Thr Leu Cys Thr Ala Arg Pro Ala Pro Thr Leu Pro Glu Gln Ala Gln 20 25 30

Pro Trp Gly Val Pro Val Glu Val Glu Ser Leu Leu Val His Pro Gly
35 40 45

Asp Leu Leu Gln Leu Arg Cys Arg Leu Arg Asp Asp Val Gln Ser Ile 50 55 60

Asn Trp Leu Arg Asp Gly Val Gln Leu Val Glu Ser Asn Arg Thr Arg

Ile Thr Gly Glu Glu Val Glu Val Arg Asp Ser Ile Pro Ala Asp Ser 85 90 95

- Gly Leu Tyr Ala Cys Val Thr Ser Ser Pro Ser Gly Ser Asp Thr Thr
 100 105 110
- Tyr Phe Ser Val Asn Val Ser Asp Ala Leu Pro Ser Ser Glu Asp Asp 115 120 125
- Asp Asp Asp Asp Ser Ser Ser Glu Glu Lys Glu Thr Asp Asn Thr
 130 135 140
- Lys Pro Asn Arg Arg Pro Val Ala Pro Tyr Trp Thr Ser Pro Glu Lys
 145 150 155 160
- Met Glu Lys Lys Leu His Ala Val Pro Ala Ala Lys Thr Val Lys Phe
 165 170 175
- Lys Cys Pro Ser Ser Gly Thr Pro Asn Pro Thr Leu Arg Trp Leu Lys
 180 185 190
- Asn Gly Lys Glu Phe Lys Pro Asp His Arg Ile Gly Gly Tyr Lys Val 195 200 205
- Arg Tyr Ala Thr Trp Ser Ile Ile Met Asp Ser Val Val Pro Ser Asp 210 215 220
- Lys Gly Asn Tyr Thr Cys Ile Val Glu Asn Glu Tyr Gly Ser Ile Asn 225 230 235 240
- His Thr Tyr Gln Leu Asp Val Val Glu Arg Ser Pro His Arg Pro Ile
 245 250 255
- Leu Gln Ala Gly Leu Pro Ala Asn Glu Thr Val Ala Leu Gly Ser Asn 260 265 270
- Val Glu Phe Met Cys Lys Val Tyr Ser Asp Pro Gln Pro His Ile Gln 275 280 285
- Trp Leu Lys His Ile Glu Val Asn Gly Ser Lys Ile Gly Pro Asp Asn 290 295 300
- Leu Pro Tyr Val Gln Ile Leu Lys Thr Ala Gly Val Asn Thr Thr Asp 305 310 315 320
- Lys Glu Met Glu Val Leu His Leu Arg Asn Val Ser Phe Glu Asp Ala 325 330 335
- Gly Glu Tyr Thr Cys Leu Ala Gly Asn Ser Ile Gly Leu Ser His His 340 345 350

Ser Ala Trp Leu Thr Val Leu Glu Ala Leu Glu Glu Arg Pro Ala Val 355 360 365

Met Thr Ser Pro Leu Tyr Leu Glu Ile Ile Ile Tyr Cys Thr Gly Ala 370 375 380

Phe Leu Ile Ser Cys Met Leu Gly Ser Val Ile Ile Tyr Lys Met Lys 385 390 395 400

Ser Gly Thr Lys Lys Ser Asp Phe His Ser Gln Met Ala Val His Lys
405 410 415

Leu Ala Lys Ser Ile Pro Leu Arg Arg Gln Val Thr Val Ser Ala Asp 420 425 430

Ser Ser Ala Ser Met Asn Ser Gly Val Leu Leu Val Arg Pro Ser Arg 435 440 445

Leu Ser Ser Gly Thr Pro Met Pro Ala Gly Val Ser Glu Tyr Glu 450 455 460

Leu Pro Glu Asp Pro Arg Trp Glu Leu Pro Arg Asp Arg Leu Val Leu 465 470 475 480

Gly Lys Pro Leu Gly Glu Gly Cys Phe Gly Gln Val Val Leu Ala Glu 485 490 495

Ala Ile Gly Leu Asp Lys Asp Lys Pro Asn Arg Val Thr Lys Val Ala 500 505 510

Val Lys Met Leu Lys Ser Asp Ala Thr Glu Lys Asp Leu Ser Asp Leu 515 520 525

Ile Ser Glu Met Glu Met Met Lys Met Ile Gly Lys His Lys Asn Ile 530 535 540

Ile Asn Leu Leu Gly Ala Cys Thr Gln Asp Gly Pro Leu Tyr Val Ile 545 550 555 550

Val Glu Tyr Ala Ser Lys Gly Asn Leu Arg Glu Tyr Leu Gln Ala Arg
565 570 575

Arg Pro Pro Gly Leu Glu Tyr Cys Tyr Asn Pro Ser His Asn Pro Glu 580 585 590

Glu Gln Leu Ser Ser Lys Asp Leu Val Ser Cys Ala Tyr Gln Val Ala 595 600 605 Arg Gly Met Glu Tyr Leu Ala Ser Lys Lys Cys Ile His Arg Asp Leu 610 620

Ala Ala Arg Asn Val Leu Val Thr Glu Asp Asn Val Met Lys Ile Ala 625 630 635 640

Asp Phe Gly Leu Ala Arg Asp Ile His His Ile Asp Tyr Tyr Lys Lys 645 650 655

Thr Thr Asn Gly Arg Leu Pro Val Lys Trp Met Ala Pro Glu Ala Leu 660 665 670

Phe Asp Arg Ile Tyr Thr His Gln Ser Asp Val Trp Ser Phe Gly Val 675 680 685

Leu Leu Trp Glu Ile Phe Thr Leu Gly Gly Ser Pro Tyr Pro Gly Val 690 695 700

Pro Val Glu Glu Leu Phe Lys Leu Leu Lys Glu Gly His Arg Met Asp 705 710 715 720

Lys Pro Ser Asn Cys Thr Asn Glu Leu Tyr Met Met Met Arg Asp Cys 725 730 735

Trp His Ala Val Pro Ser Gln Arg Pro Thr Phe Lys Gln Leu Val Glu 740 745 750

Asp Leu Asp Arg Ile Val Ala Leu Thr Ser Ser Gln Glu Tyr Leu Asp
755 760 765

Leu Ser Ile Pro Leu Asp Gln Tyr Ser Pro Ser Phe Pro Asp Thr Arg
770 775 780

Ser Ser Thr Cys Ser Ser Gly Glu Asp Ser Val Phe Ser His Glu Pro
785 790 795 800

Leu Pro Glu Glu Pro Cys Leu Pro Arg His Pro Thr Gln Leu Ala Asn 805 810 815

Ser Gly Leu Lys Arg Arg 820

<210> 3

<211> 22

<212> PRT

<213> Mouse

```
<400> 3
His Ser Gln Met Ala Val His Lys Leu Ala Lys Ser Ile Pro Leu Arg
                                                           15
                  5
                                      10
  1
Arg Gln Val Thr Val Ser
             20
<210> 4
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:
      tyrosine-phosphorylated peptide
<220>
<223> X = phosphotyrosine
Leu Val Ile Ala Gly Asn Pro Ala Xaa Arg Ser
                                       10
                   5
  1
<210> 5
<211> 16
<212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: consensus
 <220>
 <223> Xaa can be any amino acid
 <400> 5
 Val Xaa Xaa Leu Xaa Xaa Xaa Ile Xaa Leu Xaa Arg Xaa Val Xaa Val
                                                            15
                                       10
                    5
 <210> 6
 <211> 4
 <212> PRT
 <213> Artificial Sequence
 <220>
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1

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<223> Description of Artificial Sequence: motif
<220>
<223> X in the 3rd position= any amino acid
<220>
<223> X in the 4th position= phosphotyrosine
<400> 6
Asn Pro Xaa Xaa
  1
<210> 7
<211> 12
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: synthetic
      peptide derived from TrkA receptor
<400> 7
His Ile Ile Glu Asn Pro Gln Xaa Phe Ser Asp Ala
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